

GEARS AND WINCHES

Electric Chain Hoist Winch Manual

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NOT FOR MOVEMENT OF HUMANS

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**ORIGINAL THOMAS WINCH MANUFACTURER ESTABLISHED 1968
PROUDLY AUSTRALIAN AND FAMILY OWNED**



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CHAPTER 1 | SYSTEM OVERVIEW

Introduction

Welcome to our huge family of happy winch owners, we would like to thank you for purchasing the Chain Hoist Winch. We trust you will be very happy with the performance and reliability of this product.

However, we do ask that you take a few minutes to read and thoroughly understand this booklet. If you have new operators assigned to the winch, make sure that they read and understand it also.

These winches are specially designed for a fast and economical load recovery. They are built strong, lightweight and compact to ensure for an extended use life. The motors fitted to these winches are specifically designed and built for electric winching operation and should not be restricted from reasonable ventilation. The Chain Hoist winches are also fitted with a fail-safe electromagnetic brake. This ensures strong and safe operation. In the event of power outages, the brake is automatically engaged.

If you have any questions on fitting, operating or information in general, please don't hesitate to contact us as we are happy to answer any and all of your queries.

Installation Instructions

The initial installation or mounting of this Winch is critically important for proper operation and performance. If the winch is mounted unevenly the centre line of the unit can be distorted to a point where the winch will not operate in either direction. It is therefore very important that the following instructions are observed when this Winch is installed. Please spend a bit of quality time on this, it will pay off in the long run.

1. Remove the upper hook cross bolt or upper load block cross bolt and detach the upper hook or upper load block from the main body of the hoist.
2. Attach the upper hook or upper load block to the to the monorail trolley or motor saddle trolley at the intended hoist location.
3. Reattach the main hoist to the upper hook or upper load block, tighten the slotted nut and insert the safety split pin. If installation conditions permit, it is not necessary to detach the upper hook from the hoist.
4. Connect the electric power cables.
5. Make sure the three-phase power wire are correctly connected before turning power on. If the chain hoist running the wrong direction after connecting the power cable, reverse any two of the power cable R, S and T. The hoist should then be able to running the right direction.
6. Testing after installation
 - a. Press the "DOWN" button on the pendant control in short bursts until the chain limit spring touches the limit switch.
 - b. Press the "UP" button and check that the chain collects evenly in the chain bag

Electrical Requirements

Voltage:

1. If voltage falls below the rated voltage by 10% or more, the motor may lose power or stop working.

Current:

As shown on the hoist data plate. The core diameter of the power supply cables must be no less than the specified size.

2. The type and size of cables, their length, and details of their installation, may affect voltage and current. Reduced voltage or inadequate current will impair your hosts performance and may shorten its life.

Low Voltage Pendant Controls

- Press the "Down" button to unwind rope, (make sure the rope is under Tension). The load will travel backwards/lower.
- Press the "Up" button on the pendant control for retrieval/Raising of the Load.
- E Stop button is for emergency stop function if applicable. The E-stop is a good safety feature for once the load is in position to prevent inadvertent operation. To re-set the emergency stop for a winch control, release the button from the down position, twist the button clockwise.

Note: When using the pendant control – buttons must be fully depressed.



CHAPTER 2 | SAFETY

Safety

Installation and maintenance

1. Never use power supply frequencies (Hz) outside the specified range.
2. To prevent the risk of electric shock, the hoist must be fully earthed (grounded).
3. Ensure a three-phase or single-phase power supply is connected at correct voltage.
4. When installing the hoist, do not pass the electric power cables through the eye bolt ring on the upper side of the gearbox.
5. The hoist must be attached to a structure of sufficient strength to support the hoist and all its loads.
6. Do not attempt to modify any part of the hoist's mechanical, electrical or structural components.
7. If the hoist is used in an elevator application, please comply with all relevant national safety regulations.
8. The tracks on which the hoist trolley and end trucks run must not be oiled.
9. When replacing the chain bag, be sure to use a replacement of the correct specification, size and dimensions.

Operation

- Never use non-standard load chains or substandard lifting ropes and slings.
- Never subject the load chain to excessive sudden loads.
- During operation, ensure the hoist comes to a complete stop before reversing its direction. Never reverse the hoist direction suddenly.
- Do not raise or lower the hoist at extreme speeds.
- Do not habitually use the limit switch to stop the hoist.
- Do not allow loads to swing excessively while in motion.
- Do not drop the hoist from a height.
- Do not carry out electric arc welding work on the items suspended from the hoist. Current flowing to earth through the hoist will weaken the chain and damage the hoist's internal mechanical and electrical components.
- When you have finished using the hoist, raise the lower hook above head height to prevent people walking into it.
- After use, leave the hoist with its lower hook, chain and pendant control hanging vertically.
- Do not lift loads heavier than your hoists maximum rated load.
- Do not allow the top of the load to strike the chain bag, as this would interfere with the normal running of the chain.
- Never lift people.
- When the hoist is in use, never allow people to stand or pass underneath a load or pass in front of a moving load.
- When lifting, the load must be balanced evenly in its slings.
- Do not attempt to lift any object attached to the ground.
- Never loop the hoist's load chain around a load.
- Never attach a load to the tip of the load hook. Always place the sling in the saddle of the hook, below the safety latch.

Maintenance

1. Fill the gearbox with SAE 80W/90W lubrication oil. Change the oil after the first 500 operating hours. Thereafter, check the oil level every three months and top up as necessary.

Note: The oil fill plug is the eye bolt in the upper side of the gearbox casing. The oil drain plug is the bolt in the underside of the gearbox casing. The oil level hole is in the side of the casing.

2. If the hoist is used outdoors, it must be protected from rain.
3. If the hoist is out of use for long periods, it must be rust-protected, cleaned and maintained, and run up and down for 1-3 minutes at regular intervals to maintain its operability.
4. After use, please move the hoist away from areas of high humidity, high temperature or chemical exposure, to maintain its operability.

Chain Maintenance

Lubricate the chain with machine oil.

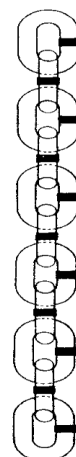
Reasons:

1. A rusty chain will kink and not run smoothly.
2. Lubrication extends chain life and improves safety.

Note: Do not use greasy; it will prevent the chain running smoothly.

- A. In dusty factory environments, use machine oil, but regularly clean the chain and remove foreign matter from the chain guides to keep the chain running smoothly.
- B. Exception: chains used in foundries should not be lubricated with oil, because the abrasive dust increases chain wear. If the chain clatters in use, lubricate it with just enough machine oil to reduce the noise.

For smooth running, the chain links must all be aligned the same way (see figure on right)



Daily Inspections

Before operating the hoist, please make the following checks:

1. Is the power on?
2. Is the supply voltage normal?
3. Is the lower hook safety latch firmly attached?
4. Does the lower hook swivel freely through 360 degrees?
5. Is the chain oiled?
6. Is the chain bag correctly attached?
7. Are the electric cable and its feston rollers in good condition and do they move freely?
8. Does the hoist make any abnormal noises?
9. Are all parts of the hoist working normally?

Monthly Inspections

Chain Inspection

If the chain is stretched or worn it will not engage properly in the chain wheel, and this may damage the hoist. If the chain is worn the hoist will generally make a clattering noise and will not lift heavy loads.

CHAPTER 3 | GENERAL

Warranty Terms and Conditions

Winch Industries Pty. Ltd. warrants parts and labour, directly to the first purchaser of each winch against defects in material and workmanship appearing under normal use and service only for a period of one (1) year from the date of purchase. If you discover a covered defect, Winch Industries will, at its option, repair, replace or refund the purchase price of this winch or winch parts at no charge to you, provided you return it during the applicable warranty period, transportation charges prepaid, to Winch Industries Service Department or Factory Authorized Servicing Distributor. (You can obtain additional information from Winch Industries directly at the address below). Please attach your name, address, telephone number, a description of the problem and a copy of a bill of sale bearing the appropriate proof of original retail purchase, to each product returned for warranty service. To obtain any warranty coverage, it is absolutely necessary that your present proof of purchase acceptable to Winch Industries, such as a copy of the purchase receipt.

This warranty applies only to winches sold and/or manufactured by Winch Industries, which can be identified by the "Winch Industries" trademark, trade name or logo affixed to them. This warranty does not apply if the product has been damaged by accident, abuse, misuse, collision, overloading, exhaust, or misapplication, or has been improperly installed, has been improperly used, has been improperly serviced, or has been modified without the written permission of Winch Industries. This warranty does not apply if any Winch Industries serial number has been removed or defaced. The finish and wire rope on the product are excluded from this warranty.

Except as expressly stated herein, there are no warranties, express or implied, including implied warranties of merchantability and fitness for a particular purpose. Any implied warranty of merchantability or fitness for a particular purpose which by law may not be excluded is

Limited in duration of one (1) year from the date of original retail purchase of this product.

The warranty and the remedies set forth above are exclusive and in lieu of all others, oral or written, express or implied. No winch industries dealer, agent or employee is authorised to make any modification, extension or addition to this warranty.

In no event is winch industries responsible for special, incidental or consequential damages resulting from any breach of warranty, or under any other legal theory, including, but not limited to lost profits, down time, goodwill, damage to or replacement of equipment and property, loss of use of the product or of any associated equipment, or cost of substituted products.

Warranty enquiries should be directed to:

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